White-nose Syndrome

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Little Brown Bats in New York with WNS. Photo by: Nancy Heaslip

WHAT IS WHITE-NOSE SYNDROME?

White-nose syndrome (WNS) is a disease that is causing mass mortality of bats (90 to 100 percent at some locations) at hibernation sites in the northeastern U.S. An estimated 1 million or more bats have died of this mysterious illness so far.

WHAT ARE SIGNS OF WHITE-NOSE SYNDROME?

- White fungus, usually on the nose, but can also be found on wings, ears and/or tail. Not all affected bats have fungus.
- The fungus requires cold temperatures and is not likely to be present on bats during the summer or fall.
- Low weights, emaciation and wing scarring.
- Bats flying outside during the day in the winter with temperatures at or below freezing.
- Bats clustered near the entrance of hibernating location, or in unusual areas.
- Dead or dying bats found on the ground, buildings, trees or other structures.

Ryan von Linden, NY DEC

For more information visit:
http://www.fw.delaware.gov/bats/Pages/Default.aspx

WHAT BAT SPECIES ARE AFFECTED?

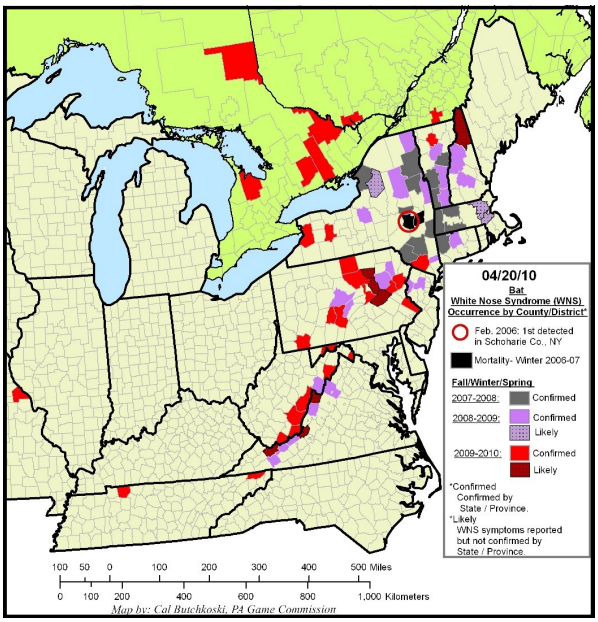
So far, only bats that overwinter communally in caves or mines - little brown bat, tri-colored bat (formerly eastern pipistrelle), big brown bat, northern long-eared bat, small-footed bat, Indiana bat.

WHAT CAUSES WHITE-NOSE SYNDROME?

The leading theory is a fungal pathogen called *Geomyces destructans*. It's thought to be an irritant that causes bats to arouse from hibernation and use up energy stores; resulting in starvation. It is also theorized to be a response to something else that's hindering the bats ability to fight off the fungus or other pathogens.

DOES WHITE-NOSE SYNDROME POSE A RISK TO HUMAN HEALTH?

There have been no reported human illnesses attributed to white-nose syndrome. Federal and state agencies as well as universities and non-profit organizations are investigating the disease but do not yet know if there is a risk to humans in contact with affected bats.



White-Nose Syndrome

Healthy Big Brown and Small Footed Bat, Alan Hicks, NY DEC

WHY IS WHITE-NOSE SYNDROME A CONCERN?

- If the disease is not controlled, it could result in extinctions of some bat species, which would disrupt the ecosystem.
- Northeastern bats are insectivores and will eat nuisance insects, especially mosquitoes and moths. One bat may eat 50 to 75 percent of its body weight in flying insects each night during the summer months. That's nearly 600 insects per hour!
- The little brown bat is the primary species impacted. Little brown bats are common in Delaware and aid in mosquito control. Bats also eat a tremendous number of moths and aid in control of forest and agricultural pests.
- White-nose syndrome appears to be spreading at a rapid rate. In four years, it has spread from one state (New York) to 14 states and 2 Canadian provinces; see map on page one. If left unchecked, it may migrate into some of the largest hibernation sites in the world. The result could be catastrophic for bats and humans alike.

Heavy fungus load, Gregory Turner, PA

HOW IS WHITE-NOSE SYNDROME SPREAD?

- One way is bat to bat. Migrating bats could be taking spores hundreds of miles.
- People (cavers, researchers and casual cave visitors) may inadvertently be spreading it by visiting affected caves and then unaffected caves.
- Not yet known for certain but fungal spores can generally be spread through air. It is likely to spread in this manner within caves.

WHAT IS BEING DONE NATIONALLY?

- The U.S. Fish and Wildlife Service is producing a national White-Nose Syndrome Response Plan, conducting research and coordinating efforts.
- Universities, government agencies and non-profit organizations are researching all possible causes and solutions.
- Restrictions (some voluntary, some mandatory) are being placed on cave visitation to help stop the spread.

WHAT IS DELAWARE DOING?

- Delaware is part of a nation-wide agency team working to track the disease, plan research and find answers.
- Collecting information on location and size of summer colonies. Collecting samples for DNA analysis.
- Managing a volunteer project to collect information on maternity colonies in Delaware.
- Examining live and dead bats for signs of white -nose syndrome.

Report bat colonies (roosting, not feeding please) to Division of Fish and Wildlife 302-735-8670
For more information visit: http://www.fw.delaware.gov/bats/Pages/Default.aspx